



PUNJAB PUBLIC SERVICE COMMISSION
COMBINED COMPETITIVE EXAMINATION
FOR RECRUITMENT TO THE POSTS OF
PROVINCIAL MANAGEMENT SERVICE, ETC -2022
CASE NO. 2C2023

SUBJECT: BOTANY (PAPER-I)

TIME ALLOWED: THREE HOURS

MAXIMUM MARKS: 100

NOTE:

- i. All the parts (if any) of each Question must be attempted at one place instead of at different places.
- ii. Write Q. No. in the Answer Book in accordance with Q. No. in the Q. Paper.
- iii. No Page/Space be left blank between the answers. All the blank pages of Answer Book must be crossed.
- iv. Extra attempt of any question or any part of the question will not be considered.

Attempt FIVE Questions in All. Attempt in Urdu or English.

- Q. No.1** Describe characteristic features of Diatoms with special reference to their structure, reproduction and ecology. (20 Marks)
- Q. No.2** Differentiate between the following: (10+10=20 Marks)
- a. Rusts and Smut
- b. Wilts and Rots
- Q. No.3** Write notes on: (10+10=20 Marks)
- a. Parasexual cycle in Fungi
- b. Ascus and Basidium development.
- Q. No.4** Describe in detail the general characteristics, classification and economic importance of Bryophytes. (20 Marks)
- Q. No.5** What is Heterospory? Explain seed habit in *Selaginella*. Also write why it failed to produce seed. (20 Marks)
- Q. No.6** What are Seed Ferns? How they are Classified? What is the evolutionary significance of Seed Ferns in Geological Time Scale? (20 Marks)
- Q. No.7** Differentiate between Plesiomorphy and Apomorphy? How such terms are useful in determining the evolution in Angiosperms? (20 Marks)
- Q. No.8** What is Numerical taxonomy? Write its principle, merits, demerits and its applications. (20 Marks)